

ABSTRACT

A process for preparing carotenoids, in which the process includes reacting a dialkoxo dialdehyde in a double Wittig condensation with a phosphonium salt of or in a double Wittig-Horner condensation with a phosphonate. The carotenoids include, for example, β -carotene, zeaxanthin, canthaxanthin, astaxanthin, lycopene and crocein, which are useful as nutraceuticals, food colorants, and feed additives.